

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

ATTACHMENT 20
(SEDIMENTATION POND/IMPOUNDMENT DATA SHEET)

Applicant's Name The Ohio Valley Coal Company Pond # E

Type of impoundment Excavated Sediment Pond Permanent , Temporary X

1. POND DRAINAGE AREA DATA:

- a) Drainage area 3.31 acres
- b) Disturbed area 1.07 acres
- c) Ave. land slope 27.7 %
- d) Hydrologic soil group C
- e) Hydraulic length 275 ft.
- f) Cover/condition of the undisturbed area Woods/Vegetated = 2.24
Acres

2. DESIGN STORM CRITERIA:

- a) Method:
 - 1) Design method(s) including computer programs: Design Storm Discharge, Design Storm Hydrograph, Flood Routing Haestad Methods HEC-1
 - 2) SCS curve number 78
- b) Rainfall Amount/Peak Flow Rainfall, in. Peak flow, cfs.
 - 1) 10 year, 24 hour = 3.78 8.37
 - 2) 25 year, 6 hour = _____
 - 3) 50 year, 6 hour = _____
(if permanent)
 - 4) 100 year, 6 hour = _____
(if 20/20 size)

3. POND SIZE:

- a) Dimensions:
 - 1) Dam height 10 ft.
 - 2) Dam width 30 ft.
 - 3) Dam length 145 ft.
 - 4) Dam downstream slope 50 %
 - 5) Dam upstream slope 33 %
 - 6) Core length ft. ft. ft.
- b) Sediment storage volume 1.38 ac. ft. is provided below the 1156 foot elevation.
- c) Stage/Area Data:

	Elevation ft.	Surface Area ac.	Volume ac.ft.
1) Bottom of pond	<u>1150</u>	<u>0.11</u>	<u>0.00</u>
2) Streambed at upstream toe:	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
3) Principal spillway inlet:	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
4) Emergency spillway crest:	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
5) Top of embankment:	<u>1160</u>	<u>0.36</u>	<u>2.30</u>

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4. PRINCIPAL SPILLWAY: **N/A**

- a) Pipe length _____ ft.
- b) Pipe diameter _____ in.
- c) Pipe slope _____ %
- d) Riser diameter _____ in.
- e) Riser height _____ ft.
- f) Type of pipe _____
- g) Number of anti-seep collars _____; spacing along pipe _____ ft.
- h) Does the design include a trash rack? _____ Yes, _____ No.
- i) Does the design include an anti-vortex device? _____ Yes, _____ No.

5. EMERGENCY SPILLWAY/EXIT CHANNEL: **N/A**

- a) Base width _____ ft.
- b) Design flow depth _____ ft.
- c) Exit slope _____ %
- d) Exist velocity _____ fps
- e) Channel lining _____
- f) Side slopes _____
- g) Freeboard _____ ft.
- h) Entrance slope _____ %
- i) Length of level control section _____ ft.

6. The minimum static factor of safety for this impoundment is **N/A**

7. Provide as an addendum to this attachment a detailed plan view or 2 cross sections of the impoundment.

COMMENTS: **Water level to be controlled by pumping water from sediment pond back into slurry pool of the main embankment.**

9. Is this an MSHA structure? _____ Yes, **X** No. If "yes," provide the MSHA ID. number if one has been assigned _____.

10. If this is to be retained as a permanent impoundment, submit an addendum to this attachment demonstrating compliance with rule 1501:13-9-04(H)(2) of the Administrative Code.

11. I hereby certify that this impoundment is designed to comply with the applicable requirements of rule 1501:13-9-04 of the Administrative Code using current, prudent engineering practices.

Erkan Esmer
Signature

Date

P.E. Seal



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